

# Homework 75.5 FORM A

## Finding Complex Areas

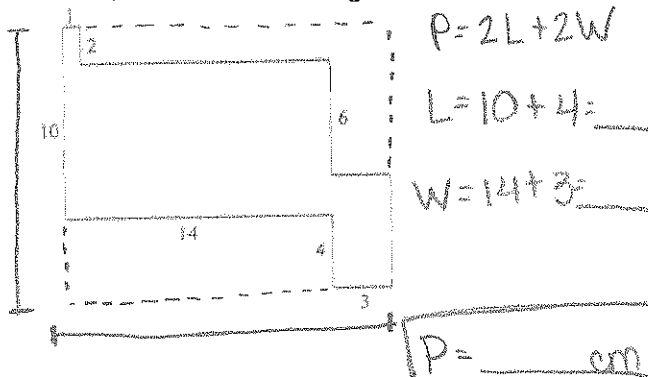
Failure to show all work will result in a LaSalle.

Name: \_\_\_\_\_

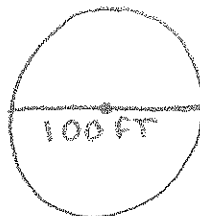
Period: \_\_\_\_\_ Date: \_\_\_\_\_

1) In the figure below, adjacent sides meet at right angles and the given lengths are in centimeters.

What is the perimeter of the figure in centimeters?



2) The city of Chicago Heights is trying to build a circular field. They want to build a fence around the entire field. How much of fencing is needed if the field if the diameter is 100 feet?

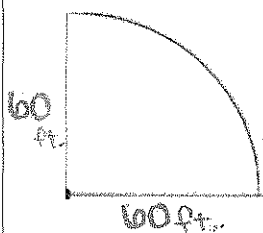


$$C = d\pi$$

$$d = 100 \text{ ft}$$

Exact \_\_\_\_\_ Approximate \_\_\_\_\_

3) A park wants to put a fence around a baseball field in the shape below. Each straight side of the fence is 60 feet long, and the rounded side is an arc that measures  $90^\circ$ . How many feet of fencing does the park need to purchase?



$$360 \div 90 = 4$$

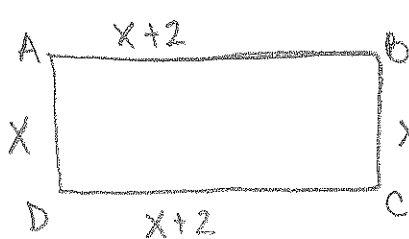
$$\frac{2\pi r}{4} =$$

$$2r =$$

Total { }

Exact \_\_\_\_\_ Approximate \_\_\_\_\_

4) Two of the sides of rectangle ABCD are 2 units longer than the other two sides. If the perimeter of the rectangle ABCD is 72 units, what is the area of the rectangle?



$$P = 72$$

$$x + x + 2 + x + x + 2 = 72$$

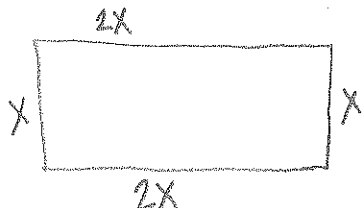
$$A = L \cdot W$$

$$A = (x)(x+2)$$

$$x =$$

$$A = \text{units}^2$$

5) The perimeter of a rectangle is 90 inches. The width is unknown. The length is two times longer than the width. Find the area of the rectangle.



$$P = 90$$

$$A = L \cdot W$$

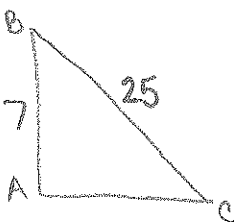
$$A = (x)(2x)$$

$$x + 2x + x + 2x = 90$$

$$x =$$

$$A = \text{in}^2$$

6) In a right triangle ABC, the hypotenuse BC, has a length of 25 units and side AB has a length of 7. What is the perimeter of the triangle?



$$a^2 + b^2 = c^2$$

$$7^2 + b^2 = 25^2$$

$$b =$$

$$P = 7 + 25 +$$

$$P = \text{units}$$